Appl. No. 09/878,749

Amdt. dated February 17, 2005

Reply to Office Action of January 11, 2005

IN THE CLAIMS:

Amend the following claims:

1. (currently amended) A stent and balloon catheter in combination comprising:

a balloon catheter with a first an inner and a second an outer balloon, the second outer

balloon overlaying the first inner balloon; and

an expandable stent mounted over the first inner and second outer catheter balloons,

wherein:

a burst pressure of the first inner balloon is less than a burst pressure of the second outer

balloon, a length of the second outer balloon is greater than a length of the stent and a length of

the first inner balloon is less than the length of the stent; and

the burst pressure of said inner balloon being such that, when inflated with a pressurized

medium it will expand sufficiently to expand the middle portion of said stent and implant said

stent.

2. (original) A balloon catheter according to claim 1 wherein the burst pressure of the inner

balloon is less than 10 atmospheres.

3. (original) A balloon catheter according to claim 2 wherein the burst pressure of the inner

balloon is approximately 5 atmospheres.

4. (original) A balloon catheter according to claim 3 wherein the burst pressure of the outer

balloon is greater than 10 atmospheres.

5. (original) A balloon catheter according to claim 1 wherein the burst pressure of the inner

balloon is approximately 5 atmospheres.

6. (original) A balloon catheter according to claim 1 wherein the burst pressure of the outer

balloon is greater than 10 atmospheres.

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7. (original) A balloon catheter according to claim 3 wherein the outer balloon is formed of a

non-compliant material.

8. (original) A balloon catheter according to claim 7 wherein the inner balloon is formed of a

non-compliant material.

9. (original) A balloon catheter according to claim 1 wherein the outer balloon is formed of a

non-compliant material.

10. (currently amended) A balloon catheter according to claim [[1]] 9 wherein the inner balloon

is formed of a non-compliant material.

11. (original) A balloon catheter according to claim 1 wherein the catheter shaft has a guidewire

port located adjacent the balloons.

12. (currently amended) The combination A balloon catheter according to claim 1 wherein the

burst pressure of the first balloon is at least 5 atmospheres less than the burst pressure of the

second balloon.

13. (canceled)

14. (canceled)

15. (canceled)

16. (canceled)

17. (canceled)

18. (canceled)

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- 19. (canceled)
- 20. (canceled)
- 21. (canceled)
- 22. (new) A balloon catheter according to claim 1 wherein the burst pressure of said outer balloon is such that, when inflated with a pressurized medium it will expand sufficiently to expand the entire length of the stent.
- 23. (new) A stent and balloon catheter in combination comprising:

a balloon catheter with an inner and an outer balloon, the outer balloon overlaying the inner balloon, both said inner balloon and said outer balloon sealed to a catheter shaft at each end;

an inflation lumen in said catheter shaft in communication only with an interior of said inner balloon; and

an expandable stent mounted over the first and second catheter balloons, wherein:

a burst pressure of the inner balloon is less than a burst pressure of the outer balloon, a length of the outer balloon is greater than a length of the stent and a length of the inner balloon is less than the length of the stent;

the burst pressure of said inner balloon is such that, when inflated with a pressurized medium from said inflation lumen, it will expand sufficiently to expand the middle portion of said stent and implant said stent, before bursting; and

pressurized medium from said inflation lumen can enter the interior of said outer balloon to inflate it and further expand the stent over its full length only after said inner balloon bursts.

24. (new) A balloon catheter according to claim 23 wherein the burst pressure of the inner balloon is less than 10 atmospheres.

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25. (new) A balloon catheter according to claim 24 wherein the burst pressure of the inner balloon is approximately 5 atmospheres.

- 26. (new) A balloon catheter according to claim 25 wherein the burst pressure of the outer balloon is greater than 10 atmospheres.
- 27. (new) A balloon catheter according to claim 24 wherein the outer balloon is formed of a non-compliant material.
- 28. (new) A balloon catheter according to claim 27 wherein the inner balloon is formed of a non-compliant material.
- 29. (new) A balloon catheter according to claim 23 wherein the outer balloon is formed of a non-compliant material.
- 30. (new) A balloon catheter according to claim 29 wherein the inner balloon is formed of a non-compliant material.
- 31. (new) A balloon catheter according to claim 23 wherein the catheter shaft has a guidewire port located adjacent the balloons.
- 32. (new) A balloon catheter according to claim 23 wherein the burst pressure of the first balloon is at least 5 atmospheres less than the burst pressure of the second balloon.